



ARE-3000 AR CARD DATA EDITOR

Owner's Manual

ARE-3000 Owner's Manual

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IMPORTANT NOTES

- Unfortunately, it may be impossible to restore the contents of data that has been lost by use of this software. Roland Corporation assumes no liability concerning such loss of data.
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Chapter 1 Introduction

- AR Editor (ARE) is software that allows you to use your computer to edit the data contained on the PC/CF cards used with AR Series devices.
- Data can be edited very simply just use the mouse to change the AR settings data and AR-format phrase data on the screen. You can also record memos for cards and phrases, further simplifying editing and management of your data.
* AR devices cannot be used to check memo data; memos are viewable only on computers.
- This software allows you to use your computer to efficiently manage all your AR data. It includes a convenient backup feature, which makes use of your computer's storage devices for backing up the AR data you have stored on PC/CF cards. Such backups can later be used to restore the content of your PC/CF cards, using the AR data in the backups that have been placed on your computer's storage device.
- The software features functions for converting WAV file data to phrase data that can be used on AR devices, as well as for converting AR-format phrase data to WAV files. In addition to taking WAV files created on a computer and converting them to AR phrase data, you can also convert AR phrase data to WAV files, edit them using a WAV file editor, then reconvert the data back to AR format. In this way, by combining the power of WAV file editing on a computer with AR Series devices, you can enjoy a much higher level of control over your content.
- Additionally, by installing the optional board (AR-NT1R/NT1) in the AR-3000R/3000, allowing the unit to be connected to a LAN using TCP/IP, you can then use FTP applications to transfer files over the network. Combining this functionality with ARE allows data on a remote AR-3000R/3000 to be edited and exchanged as desired.

Use this software to put AR Series devices in service in an even greater variety of applications.

1-1) Operating Environment

PC/CF card interface

PC/CF card reader/writer, PC/CF card adapter

CPU

Pentium 166 MHz or faster

OS

Microsoft Windows 2000/XP/Vista

Compatible Data

Data on cards used on AR series devices (AR-3000R/3000/200R/200S/200/2000/100)

- * Functions available only on the AR-3000R/3000/200R/200S/200 cannot be used with the AR-2000/100. For this reason, the parameters for such functions cannot be selected when editing data on cards used with AR-2000/100 devices.

Parameters that cannot be selected with the AR-2000/100

Display Auto Off

Equalizer settings

Volume Thru

Line Thru settings (Line Thru Volume, Fade In, Fade Out)

Busy settings (Phrase Playback)

AR-LINK settings

Control Input settings (Control Terminal Recording)

MIDI settings (MIDI messages received, MMC Mode, MTC)

phrase data (Fade In, Fade Out, Loop)

Phrase Combination (Song Phrases)

1-2) Installing the Software

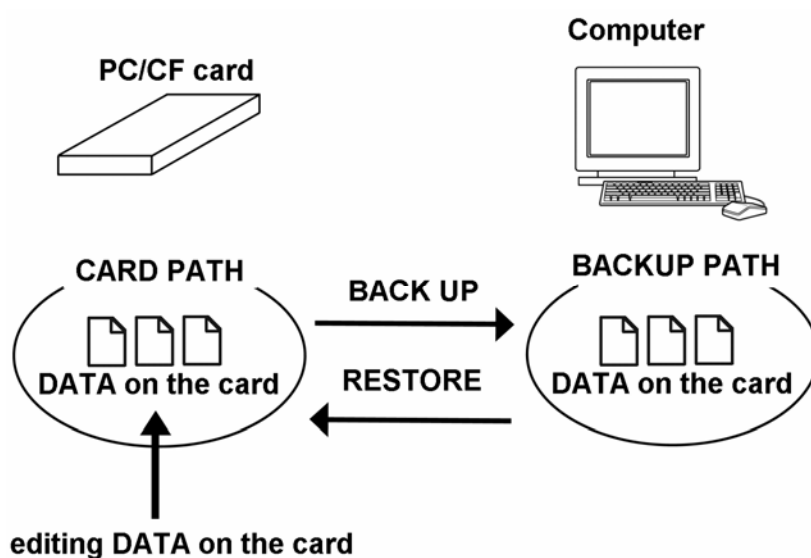
This software requires no special installation procedure.
Copy the ARE.EXE file to the computer to be used.

1-3) Principles of Editing

When carrying out editing tasks, the location of the data to be edited with ARE (the card path) and the location on the computer where the card data is to be stored (the backup path) must be specified before the data is loaded. Specifying the PC/CF card as the card path, and the computer's hard disk as the backup path permits simple copying (backup) of PC/CF card data to the computer and copying (restoration) of data on the computer back to PC/CF cards. Furthermore, if you want to restore PC/CF card data to its original condition, for example when deciding to start some editing over again, the data can be recovered simply by restoring the data backed up on the computer to the PC/CF card.

Note: When managing card data, handle all files on each card as a complete set. The AR may not function correctly if only a portion of the files are copied or deleted.

The following figure illustrates the general concept of the card path and backup path.



Schematic Illustrating Card Path/Backup Path

For the card path, specify the folder containing the AR's data (with AR-3000 format cards, this is the _AR3TDIR.CNF folder on the PC/CF card). For the backup path, create a separate backup folder on your computer, and then specify that folder.

For effective utilization of ARE's functions, use the following process for editing with the cards.

1. Start up ARE.
2. Specify the card path.
3. Specify the backup path.
4. Back up the card.
5. Load the card data.
6. Perform the editing.
7. Clean up the card data.
8. Saved the edited data and quit ARE.

For a concrete example of this procedure, please refer to "Chapter 2 Instructions for Running ARE."

Chapter 2 Instructions for Running ARE

2-1) Starting Up the Application

Double-click the ARE.exe file icon to start up the application.

AR SERIES CARD EDITOR ARE-3000 - Load system information.

FILE(E) EDIT(E) Phrase Settings(P) OPTION(O) HELP(H)

SYSTEM

System folder: C:\WINDOWS\Desktop Memo:

CARD name: **AR-3000** Phrase Num.: 250

System Settings

Dual Mono Mode: OFF Output Volume Thru: OFF

Display Sleep: OFF

Equalizer Line Thru Busy Out

RS-232C Setting

Baud Rate: 9600 Control Input

AR-LINK Setting

AR-LINK Mode: OFF MIDI Settings

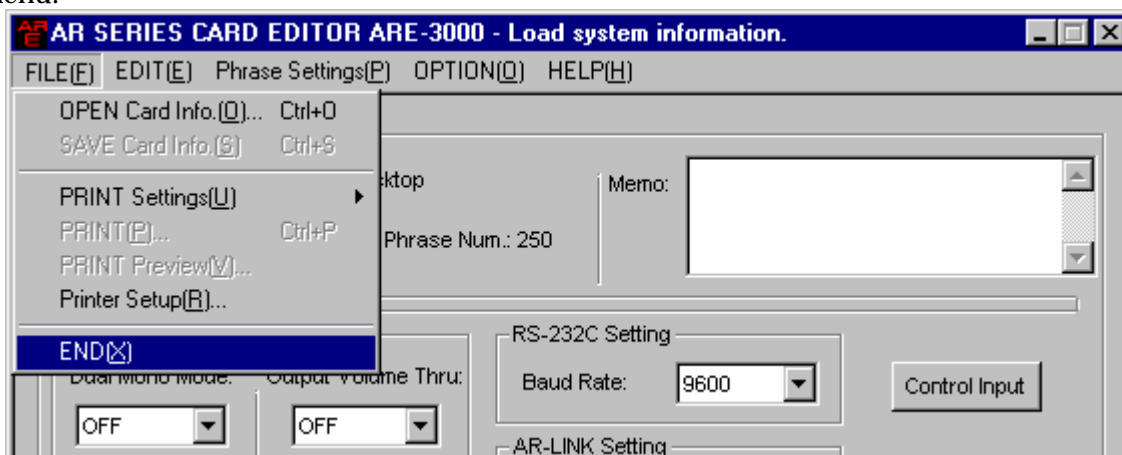
Card Editing

Card Protect: OFF

No.	NAME	TYPE	TIME	RDAC Grade	RDAC MODE	Rec Type	V
0001	---	---	---	---	---	---	---
0002	---	---	---	---	---	---	---
0003	---	---	---	---	---	---	---
0004	---	---	---	---	---	---	---
0005	---	---	---	---	---	---	---
0006	---	---	---	---	---	---	---
0007	---	---	---	---	---	---	---
0008	---	---	---	---	---	---	---
0009	---	---	---	---	---	---	---
0010	---	---	---	---	---	---	---
0011	---	---	---	---	---	---	---
0012	---	---	---	---	---	---	---

2-2) Quitting the Application

To quit the application, click the [x] button on the screen or select [END] from the [FILE] menu.

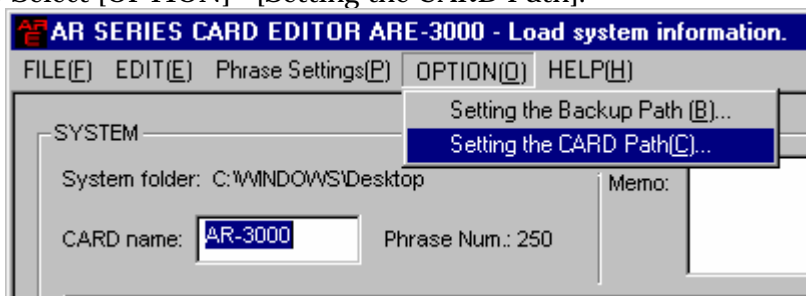


* When quitting, if any data has been changed, a confirmation message appears, asking whether or not the changed data is to be saved. Click [Yes] if you need to save the data; click [No] if the data need not be saved.

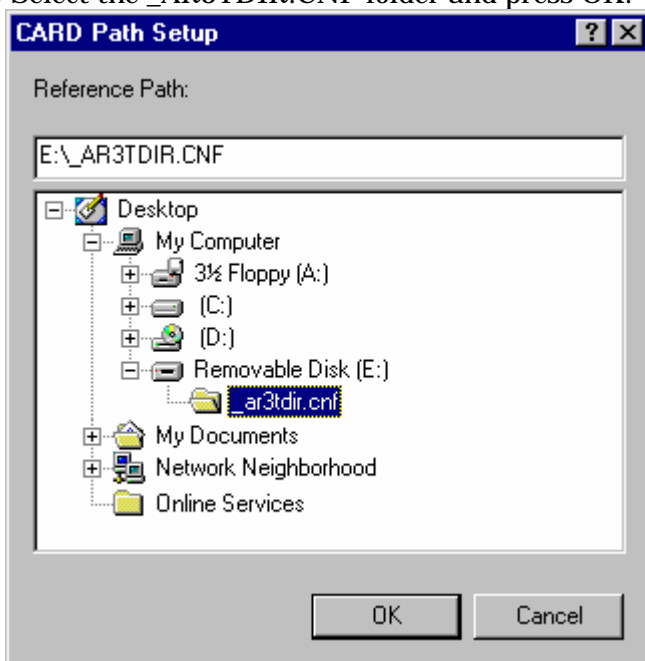
2-3) Setting the Card Path

First, set the card path. For the card path, select the folder named _AR3TDIR.CNF on the PC/CF card. The _AR3TDIR.CNF folder is the folder where AR-3000R/3000/200R/200S/200 data is stored (data for the AR-2000/100 is stored in the root directory on the PC/CF card, so select the PC/CF card root directory as the card path for those devices).

1) Select [OPTION] - [Setting the CARD Path].



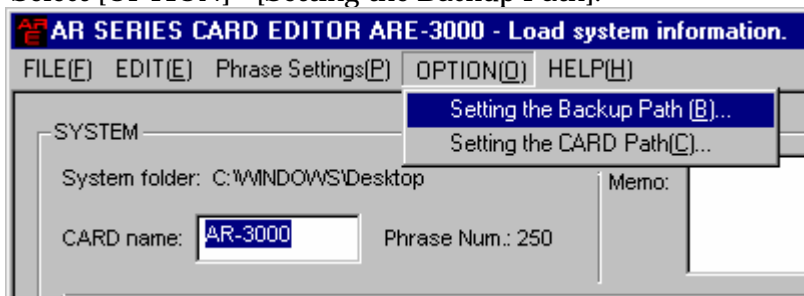
2) Select the _AR3TDIR.CNF folder and press OK.



2-4) Setting the Backup Path

Follow the procedure below to set the backup path.

- 1) On the computer, create a folder that is to be used for backup.
- 2) Select [OPTION] - [Setting the Backup Path].

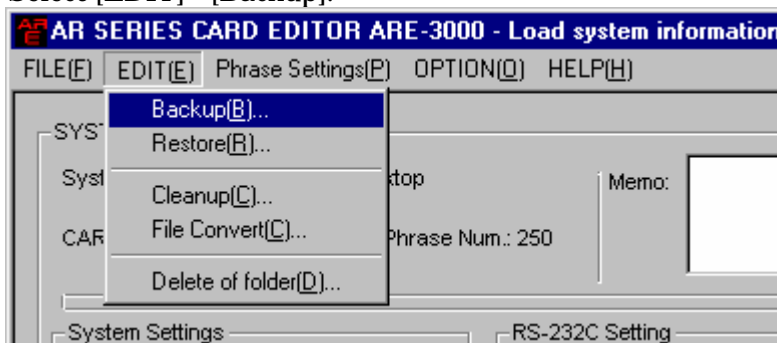


- 3) Select the backup folder that was created.

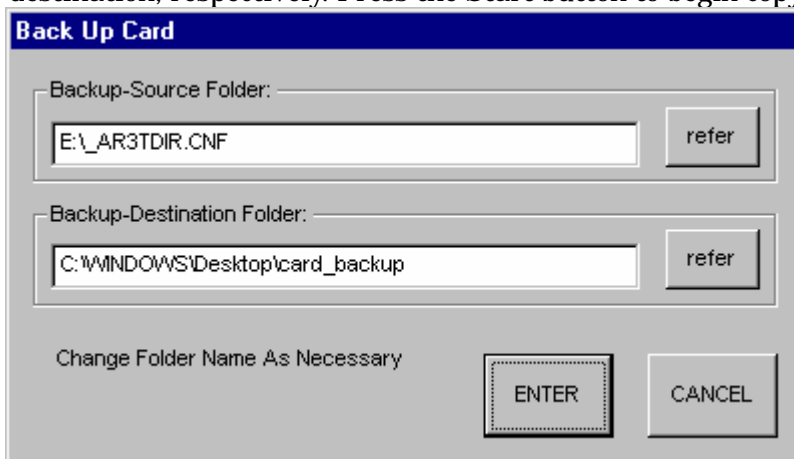
2-5) Back Up the Card

In order to save the contents of the card as is to the computer, copy all of the card data from the card path to the backup path.

- 1) Select [EDIT] - [Backup].



- 2) The card path and backup path set previously are indicated as the copy source and copy destination, respectively. Press the Start button to begin copying the data.



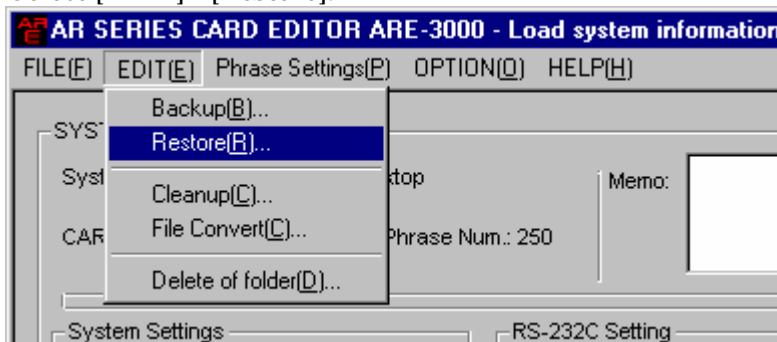
Note) If you had some card data loaded before carrying out the backup, the card data will be loaded after the backup.

2-6) To Restore the Card

If you want to have edited data be reverted to the data as it was when backed up, or want to copy AR data that has been managed on the computer to a PC/CF card, you can use the Card Restore function to overwrite the card path data with the backup path data and restore the PC/CF card content to its previous condition. The same sort of process is used for restoring and backing up cards.

- * When restoring data to PC/CF cards, be sure to format the restore-destination PC/CF card on the AR beforehand so that the backup path data and the number of managed phrases match.

- 1) Select [EDIT] - [Restore].



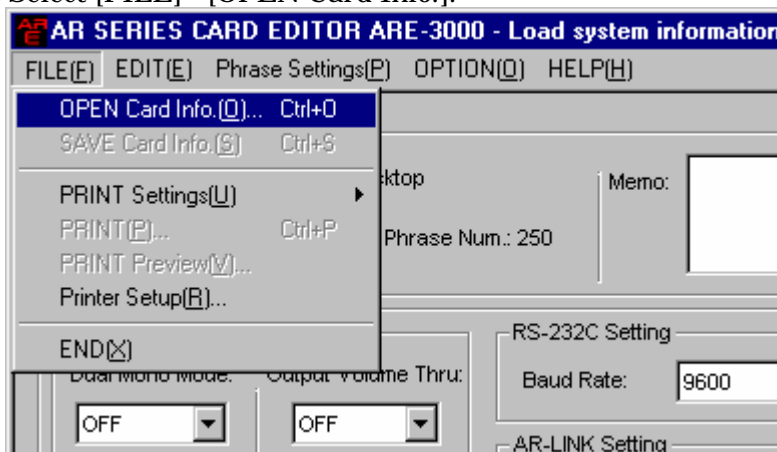
- 2) Press the Start button to begin copying the data.

Note) If you had some card data loaded before carrying out the restoration, the card data will be loaded after the restoration.

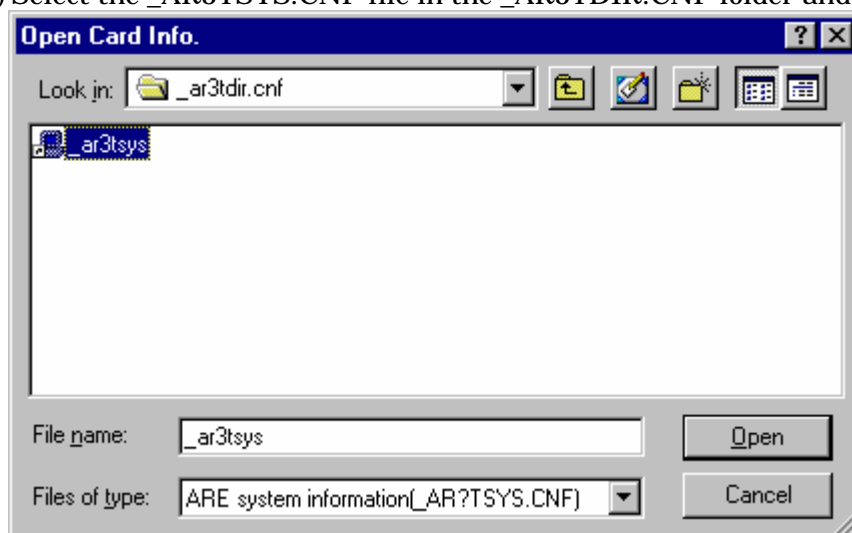
2-7) Loading Card Data

Load the card data to be edited into ARE. Load the _AR3TSYS.CNF file residing in the folder selected in the card path (when using an AR-2000/100, load the _AR2TSYS.CNF file residing in the folder selected in the card path).

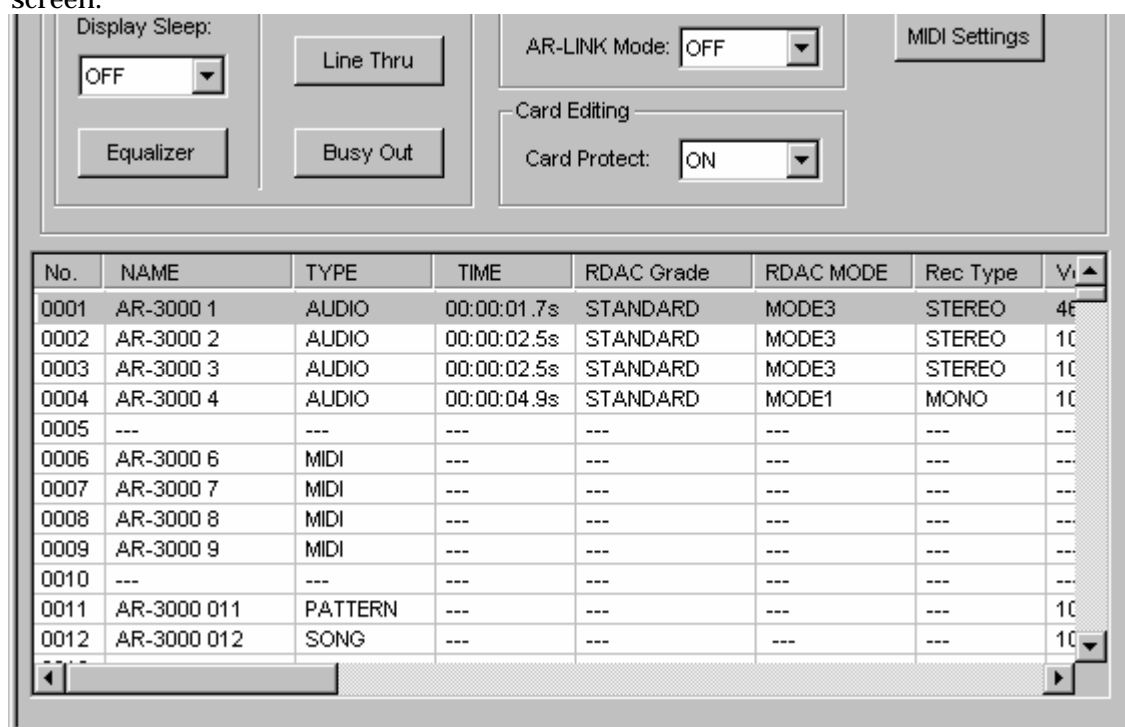
- 1) Select [FILE] - [OPEN Card Info.].



2) Select the _AR3TSYS.CNF file in the _AR3TDIR.CNF folder and press "Open."

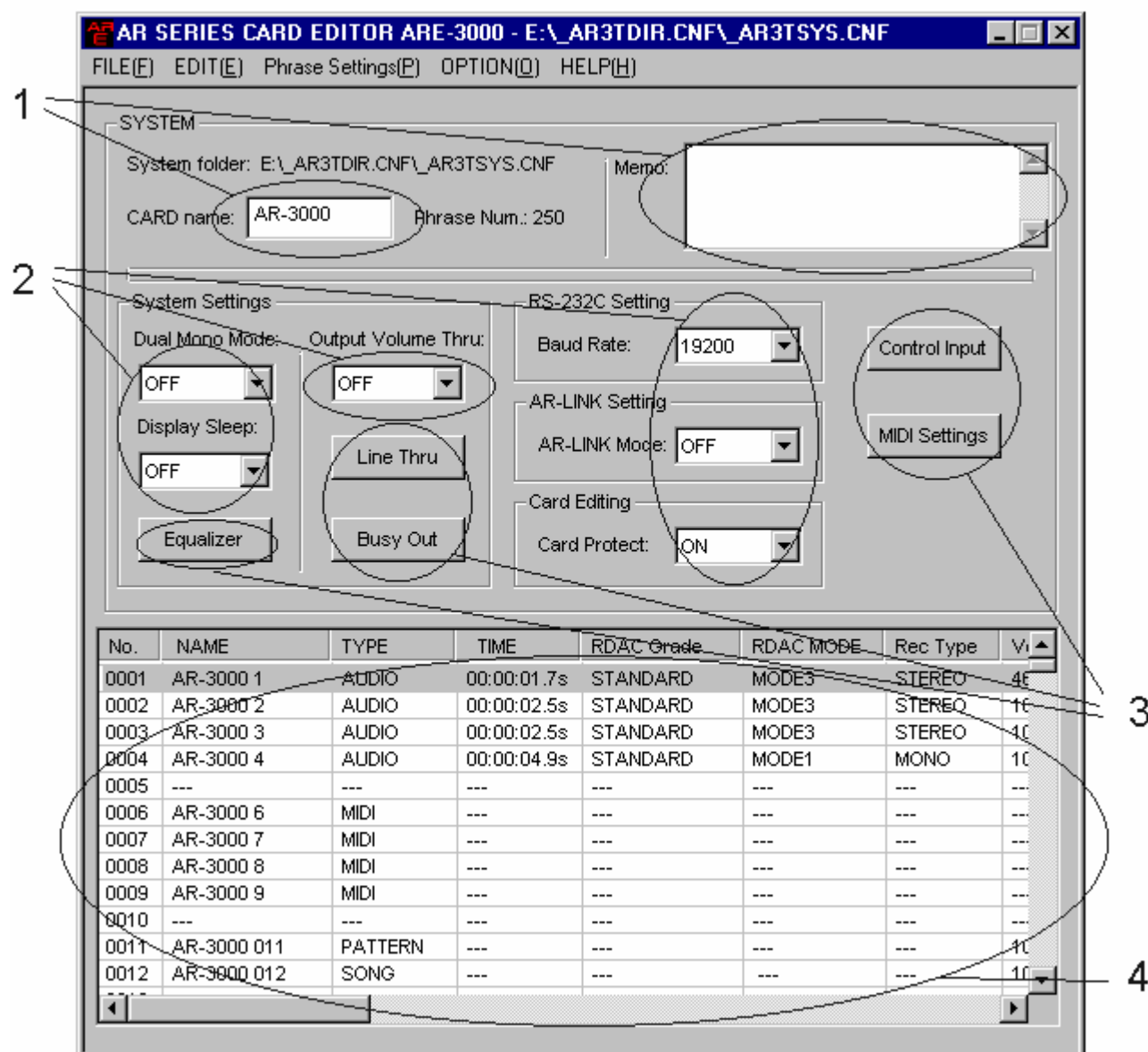


3) Information for the system and phrase data in the card data being loaded appears on the screen.



2-8) Editing Procedure

For descriptions of the settings, refer to your AR Owner's Manual.



1. Click in the text box and enter the card name (up to eight characters) and memo content (up to 800 characters).
2. Click the dropdown button and select the setting you want to edit from the list.
3. For each setting, click the setting's button, select the content using the dropdown menus, check boxes, and other tools, then click the Setting button. When selecting phrases in Direct Playback, Count Playback, and other dialog boxes, select phrases by double-clicking on the item to be set, then click the Setting button.
4. After selecting the phrase you want to edit, select the content to be edited from the [Phrase Settings] menu. Double-clicking on an item that is used in a particular phrase opens the [Phrase Setup] dialog. After making the necessary settings, click the [ENTER] button. If you double-click on an item that is not used in the phrase, the [Phrase to make] dialog opens. Select a created phrase, click the [OK] button, double-click on the selected No. parameter, then after making the settings, click the [ENTER] button; when finished creating the phrase, click the [ENTER] button. Right-clicking on a parameter for the phrase you want to edit brings up the same content as that in the [Phrase Settings] menu; select the content to edit.

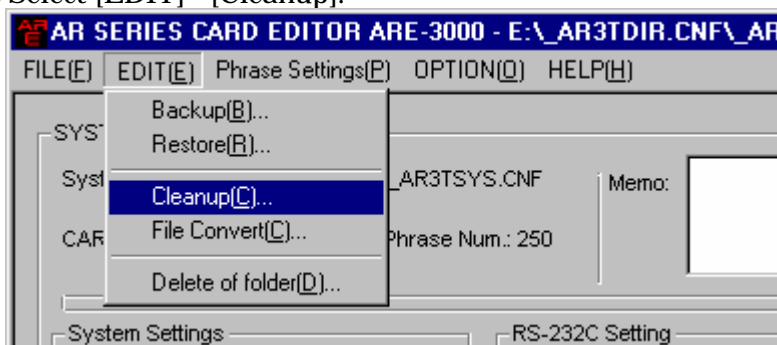
2-9) Steps Required When Quitting the Editing Process

With the AR, the phrase data for each phrase and the settings data for all phrases have differing formats. During operations such as copying phrases and converting WAV files to AR files, content regarding the settings data for all phrases may end up no longer matching the phrase data count. ARE includes a Cleanup function to prevent such conditions. Running the Cleanup allows correction of any inconsistencies that exist between the phrase data in each phrase and the settings data for all the phrases.

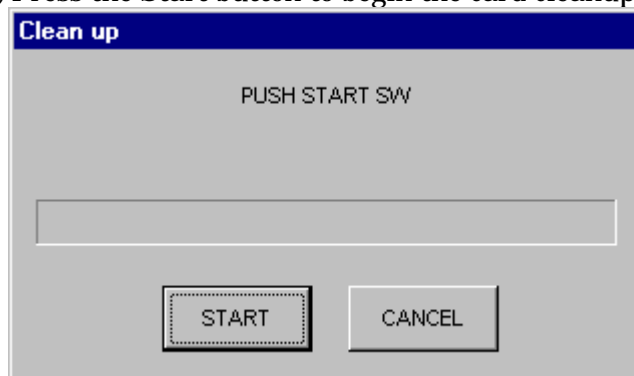
When you have finished editing all of the data, be sure to carry out the card cleanup procedure that follows to ensure consistency in the card's data.

Note) Cleanup works on the data in the folder specified as the card path. When cleaning up data after loading and then editing card data in a location other than the folder specified as the card path, first specify that folder as the card path before carrying out the cleanup.

- 1) Select [EDIT] - [Cleanup].



- 2) Press the Start button to begin the card cleanup.



- 3) A confirmation dialog appears when the cleanup is completed; click [START] to return to the Card Editor window.

Chapter 3 File Convert Function

This section describes how to use the function for converting WAV files and AR-format files.

3-1) Creating AR Phrase Data from WAV Files

You can create MODE1, MODE2, MODE3, LINEAR, and H-LINEAR AR files from 16-bit and 14-bit WAV files.

- * WAV files in an audio format other than PCM cannot be converted.
- * RDAC-Grade is determined by the WAV file sampling frequency. WAV files using a sampling rate that is not supported by the AR (such as 11.025 kHz) cannot be converted.
- * The stereo/monaural type is determined by the type used in the WAV file.

When converting files, a new AR file is created without any changes being made to the original WAV file. Conversion is non-reversible. Changes in audio quality after conversion can be checked by reconverting AR files back to WAV files.

Important Note:

The RDAC-Grade and RDAC-Mode for certain AR Series models may be incompatible. When converting files, first check the AR model being used, and edit for the applicable RDAC-Grade and RDAC-Mode.

RDAC-Grade Compatibility Chart (By Device)

		AR-3000R/3000/ 200R/200S/200	AR-2000/100
RDAC-Grade	S-HIGH(48kHz)	O	X
	HIGH(44.1kHz)	O	O
	STANDARD(32kHz)	O	O
	LONG1(22.05kHz)	O	O
	LONG2(16kHz)	O	O
	ANNOUNCE(8kHz)	O	O

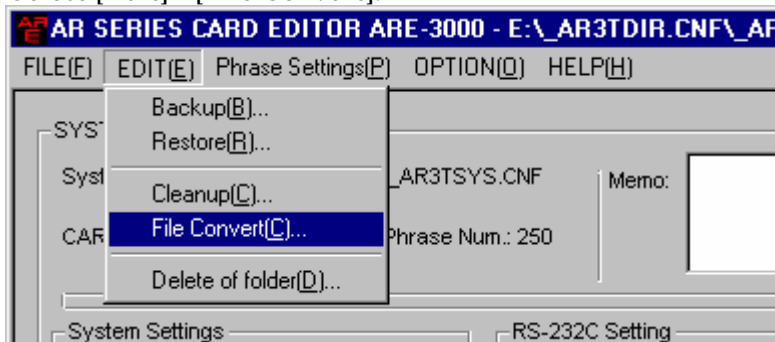
O: Compatible X: Not Compatible

RDAC-Mode Compatibility Chart (By Device)

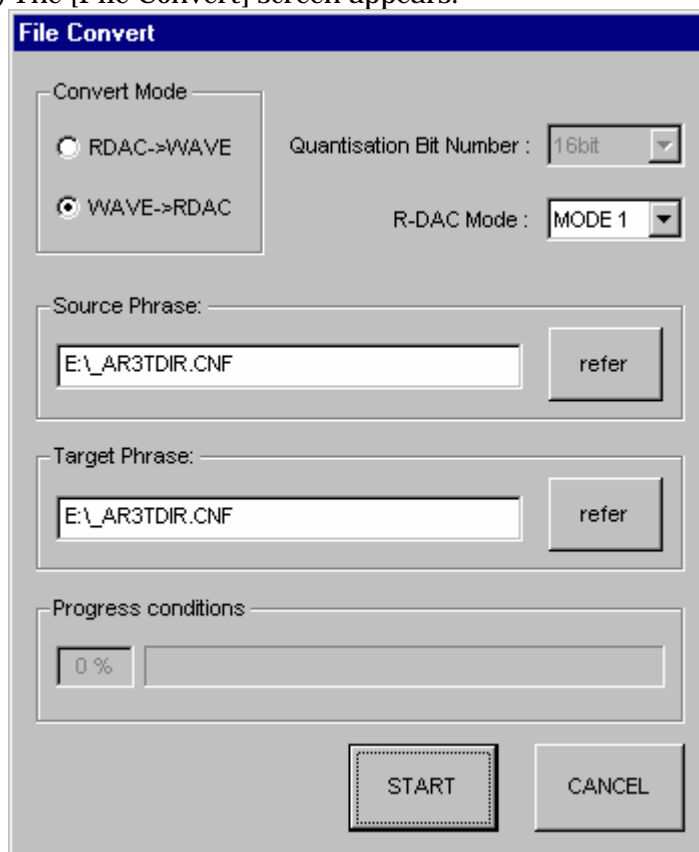
		AR-3000R/3000/ 200R/200S/200	AR-2000/100
RDAC-Mode	H-LINEAR(24bit)	O	X
	LINEAR(16bit)	O	O
	MODE3	O	X
	MODE2	O	O
	MODE1	O	O

O: Compatible X: Not Compatible

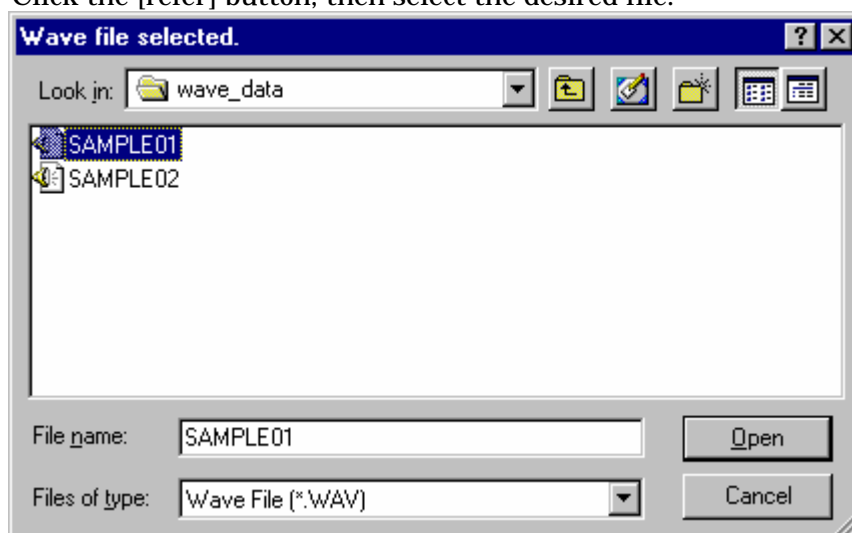
- 1) Select [Edit] - [File Convert].



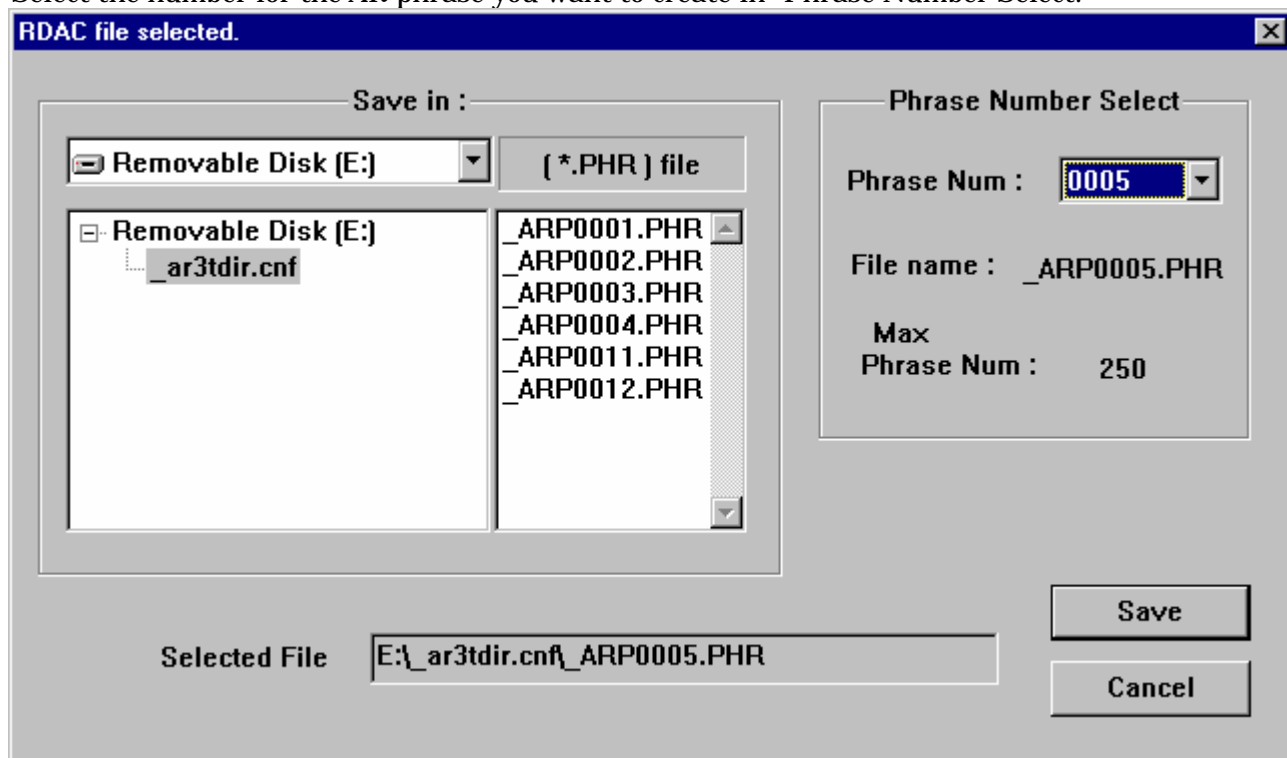
- 2) The [File Convert] screen appears.



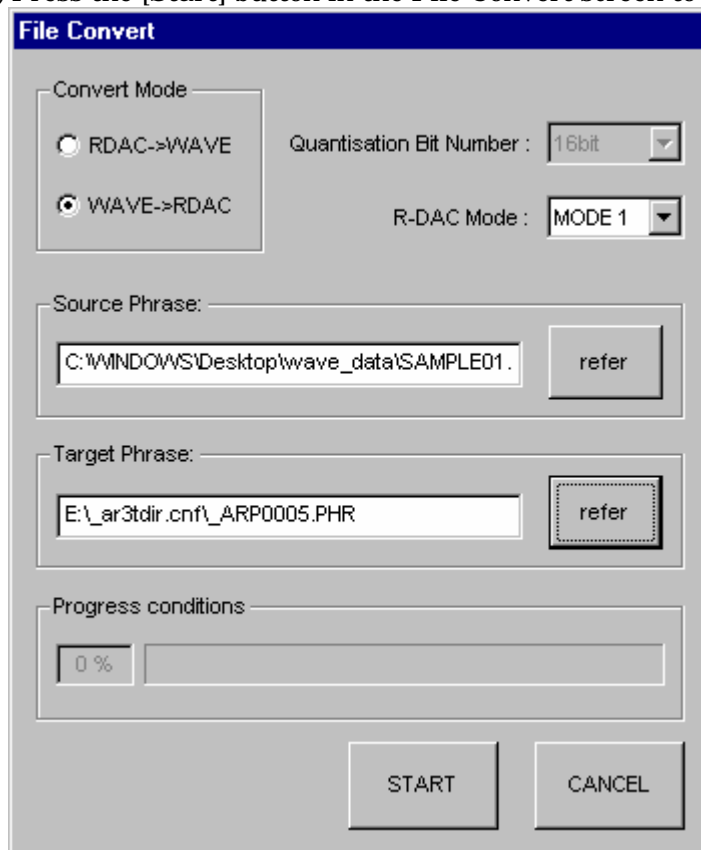
- 3) Specify the folder containing the WAV file you want to convert as the "Source Phrase". Click the [refer] button, then select the desired file.



- 4) Specify the folder for the AR file you want to have converted as the "Target Phrase". Click the [refer] button, then select the desired file. Specify the folder by means of "Save in." Select the number for the AR phrase you want to create in "Phrase Number Select."



- 5) Press the [Start] button in the File Convert screen to begin the conversion.



When the conversion is completed, the program returns to the Card Editor window.

6) Register the converted AR phrase file as a card phrase.

- When the conversion-destination phrase folder holds card data

Even if card data in the conversion-destination phrase folder is selected, the data is not registered as a phrase for that card. To register an AR phrase file created with File Convert as a card phrase, set the conversion-destination folder as the card path, and run cleanup.

- When the conversion-destination phrase folder does not hold card data

To register an AR phrase file created with File Convert as a phrase for any desired card, first load the data for the selected card. Next, after selecting the AR phrase file created with File Convert as the copy source, and specifying whatever phrase you want as the copy destination, carry out a Phrase Copy.

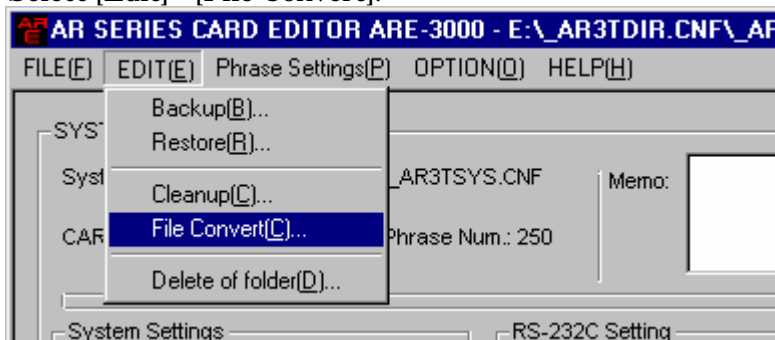
Note: Creating AR phrase files with File Convert does not result in the data being registered as a card's phrase. Be sure to carry out the card cleanup after editing the data (refer to “2-9 Steps Required When Quitting the Editing Process”).

3-2) Creating WAV Files from AR Phrase Data

You can create new WAV files from AR phrase data.

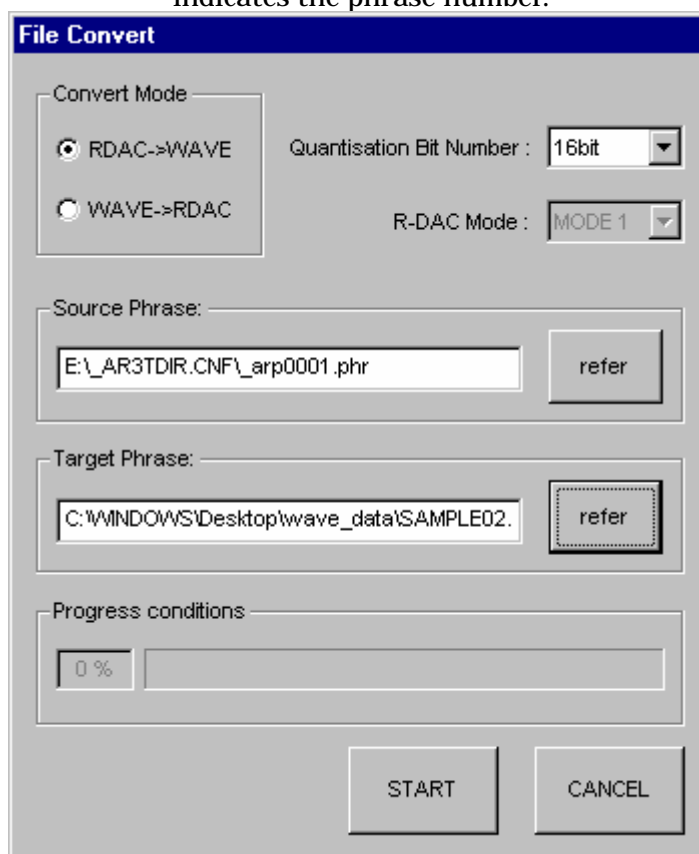
- * The sampling frequency is determined by the phrase's RDAC-Grade.
- * The stereo/monaural type is determined by the type used in the phrase (the stereo or monaural type is the same as that of the original data).

1) Select [Edit] - [File Convert].



2) The [File Convert] screen appears. Select RDAC->WAV as the “Convert Mode” and the WAV file's bit count as the “Quantisation Bit Number”. Enter the AR file (_ARP****.PHR) and the WAV file as the “Source Phrase” and “Target Phrase”, respectively, then press the [START] button.

***** indicates the phrase number.



When the conversion is completed, a new WAV file is created, and the program returns to the Card Editor window.

Chapter 4 How to Edit Data on an AR-3000R/3000 Connected to a LAN

Installing the optional board (AR-NT1R/NT1) in the AR-3000R/3000 permits connection of the unit to a LAN using TCP/IP. This FTP (file transfer) function is used over a LAN, allowing AR-3000R/3000 data to be obtained by the computer. After the data has been edited as desired, the FTP (file transfer) function can then be used to transfer the data to the AR-3000R/3000, thus allowing you to make changes in AR-3000R/3000 phrases at will, from a remote location. To use this function, the following steps need to be carried out:

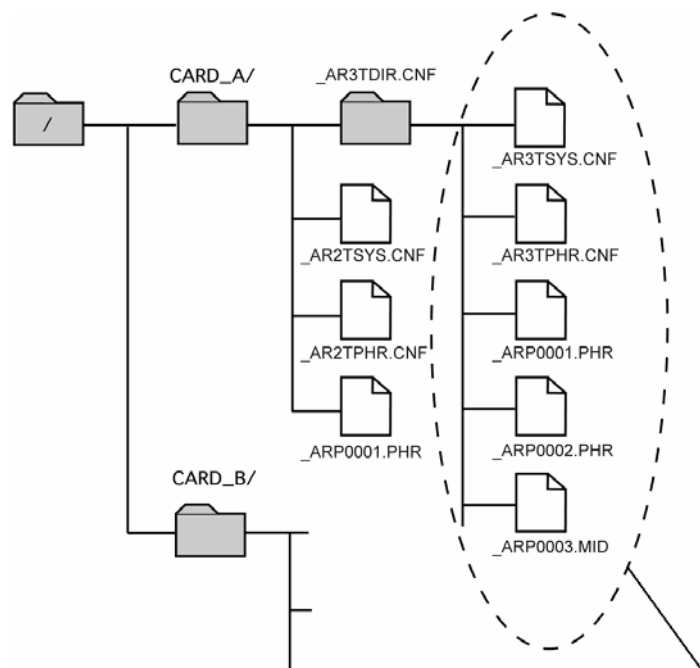
- 1) Use FTP to load the data from a remote AR-3000R/3000 to the computer.
- 2) Edit the data on the computer.
- 3) Use FTP to transfer the edited data to the remote AR-3000R/3000.

For a more detailed description of the procedure, refer to each of the following steps.

4-1) Using FTP to Load Data from a Remote AR-3000R/3000 into the Computer

First, an FTP connection must be made between the AR-3000R/3000 and the computer. For instructions on making the FTP connection, refer to the AR-NT1R/NT1 "FTP Reference."

When transferring AR-3000R/3000 data to the computer, all of the files in the _AR3TDIR.CNF folder shown below must be downloaded. Either create a new _AR3TDIR.CNF folder on the computer and copy all of the files in the AR-3000R/3000's _AR3TDIR.CNF folder to the new folder; or, just copy the entire _AR3TDIR.CNF folder to the computer.



AR-3000R/3000/200R/200S/200 Data
AR-3000 Format Card File Organization

4-2) Edit the Data on the Computer

ARE is used to edit the downloaded data. When editing, specify the new _AR3TDIR.CNF folder on the computer as the card path. Refer to "Chapter 2, Instructions for Running ARE," then edit the data. Be sure to carry out the card cleanup after editing the data.

4-3) Use FTP to Transfer the Edited Data to the Remote AR-3000R/3000

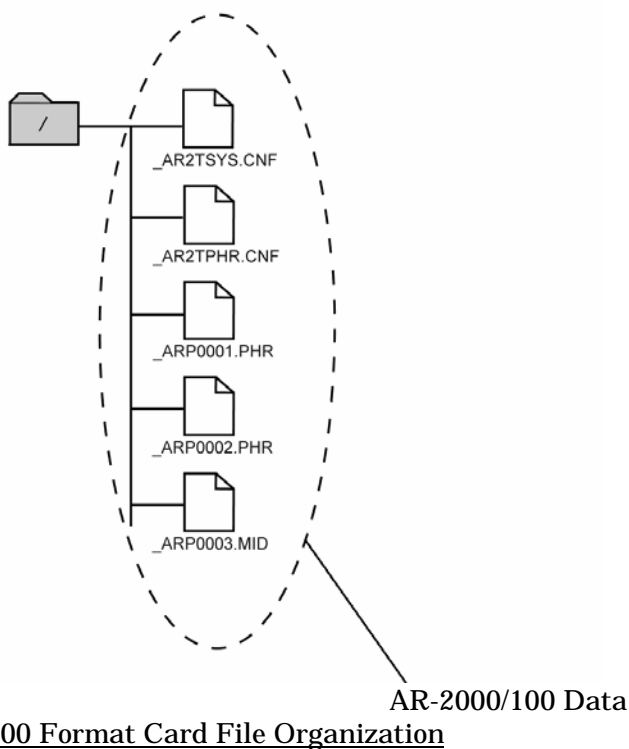
Transfer the edited data from the computer to the remote AR-3000R/3000. Delete all of the files in the remote AR-3000R/3000's _AR3TDIR.CNF folder, then transfer all of the files in the new _AR3TDIR.CNF folder on the computer.

Chapter 5 When Editing AR-2000/100 Data

You can also edit AR-2000/100 data with the ARE-3000. In this case, first check the limitations below before editing.

5-1) Limitations

- Specify the directory containing the _AR2TSYS.CNF file for the card path.
- AR-3000 format cards cannot be edited as AR-2000/100 cards. When editing cards such as AR-2000/100 cards, always use the AR-3000R/3000's Card Convert function to convert the cards to AR-2000 card format.
 - * **ARE-3000 does not feature the Card Convert function.**
- When restoring AR-2000/100 data, format the restore-destination PC/CF card with the AR-2000/100 beforehand so that the units of restored data and the number of phrases managed are the same.



Chapter 6 Copying MIDI Data (SMF)

This chapter explains how to use the ARE-3000 to work with MIDI data (SMFs) created using a MIDI sequencer or similar device, and copy the data as MIDI phrases onto AR cards.

6-1) About MIDI Data

The AR handles MIDI data as MIDI phrases in the same way that audio phrases are handled. SMF (Standard MIDI File) Format 0 is the MIDI data format that can be used as MIDI phrases.

<Reference>

For information on the MIDI messages that can be handled by the AR, refer to the "MIDI Implementation" section in the Owner's Manual that was supplied with the AR unit.

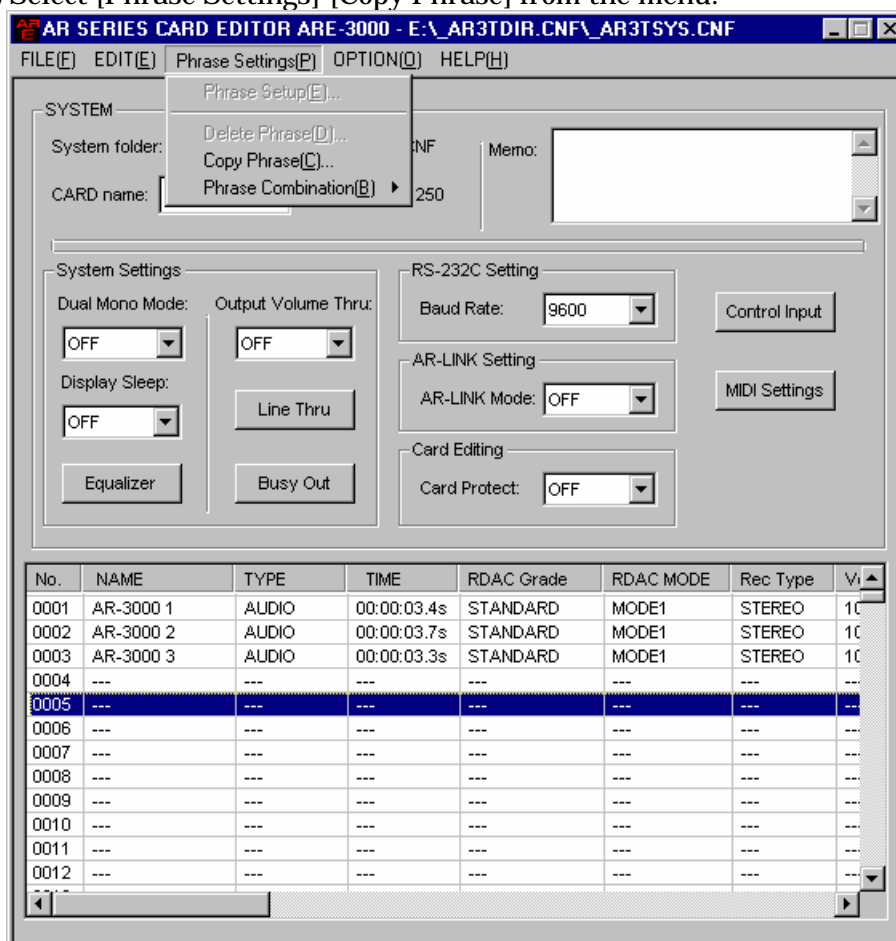
6-2) Copying MIDI Data to the AR Card

This copies your selected MIDI data (SMF) to the AR card as MIDI phrases.

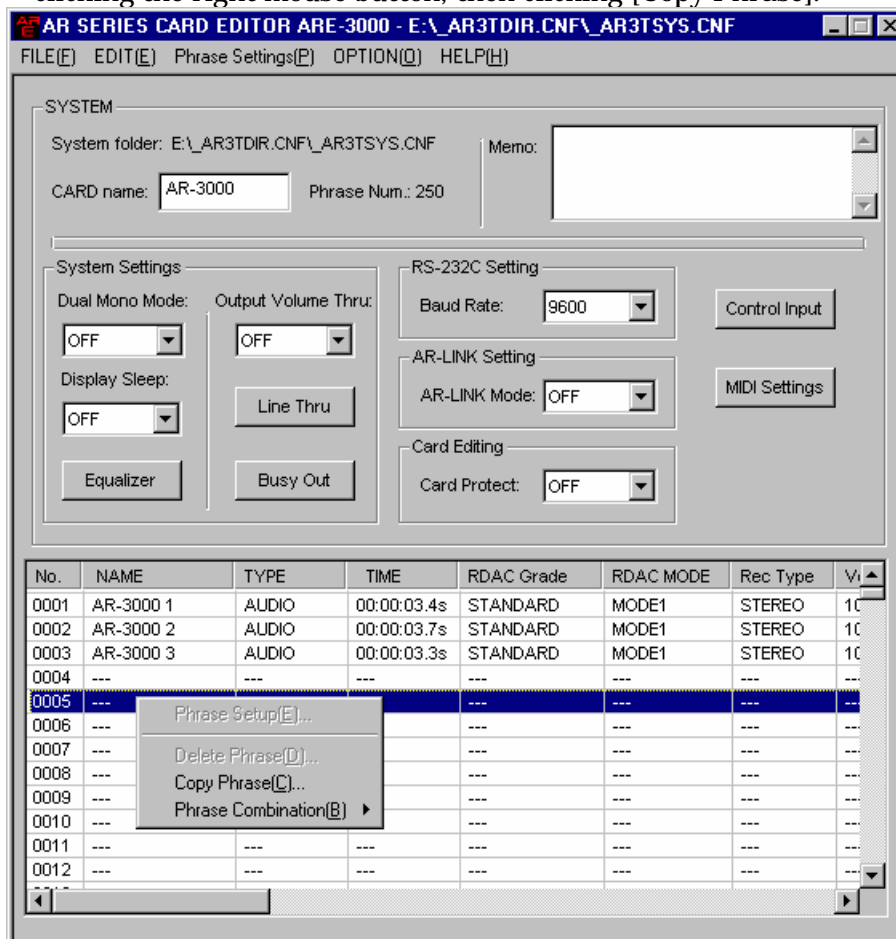
- 1) Prepare the SMF (Format 0) that you want to copy so that it can be read from the computer. Copy the SMF to a floppy disk or other media and insert the media into the computer's drive, or copy the SMF to the desired folder on the computer.
- 2) Insert the AR card to which you want the SMF added into the computer's PC/CF card drive, then start up ARE-3000.
- 3) On the ARE-3000, load the card data (refer to "2-7 Loading Card Data").
- 4) Click on the phrase number (a line where no phrase currently exists) at which the MIDI phrase is to be added.

No.	NAME	TYPE	TIME	RDAC Grade	RDAC MODE	Rec Type	V.
0001	AR-3000 1	AUDIO	00:00:03.4s	STANDARD	MODE1	STEREO	1c
0002	AR-3000 2	AUDIO	00:00:03.7s	STANDARD	MODE1	STEREO	1c
0003	AR-3000 3	AUDIO	00:00:03.3s	STANDARD	MODE1	STEREO	1c
0004	---	---	---	---	---	---	---
0005	---	---	---	---	---	---	---
0006	---	---	---	---	---	---	---
0007	---	---	---	---	---	---	---
0008	---	---	---	---	---	---	---
0009	---	---	---	---	---	---	---
0010	---	---	---	---	---	---	---
0011	---	---	---	---	---	---	---
0012	---	---	---	---	---	---	---

5) Select [Phrase Settings]-[Copy Phrase] from the menu.



You can also accomplish the same thing by moving the mouse pointer to the relevant line, clicking the right mouse button, then clicking [Copy Phrase].



- 6) Select the SMF data to be copied, then click [ENTER]. If there is other data you want to copy, click the Change Copy Destination [DEC] [INC] buttons to change the copy destination, select the data, then click START.

Phrase Copy(Phrase No.0005)

Destination Phrase: Change Destination:

E:_AR3TDIR.CNF_ARP0005.MID

Reference Drive: 3 1/2 Floppy (A:) ▼

3 1/2 Floppy (A:)

SAMPLE01.MID

SAMPLE02.MID

SAMPLE03.MID

SAMPLE04.MID

SAMPLE05.MID

SAMPLE06.MID

SAMPLE07.MID

SAMPLE08.MID

Source Phrase:

Name AR-3000 005 (MIDI Phrase)

Memo

Tempo:120|Control:OFF|Delay:00s00f|Repeat:OFF|

Format: format0

TimeBase: 480 Tempo: 120

SequenceName:

Copyright Notice:

- 7) When you have finished copying, click [END].

- 8) After carrying out a card cleanup (refer to “2-9 Steps Required When Quitting the Editing Process”), quit ARE-3000.